

REMARKS**Summary of the Office Action**

Claims 1-7 have been withdrawn from further consideration.

Claims 8-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Black et al. (U.S. Patent No. 5,382,770) (hereinafter "Black") in view of Watkins et al., (U.S. Patent No. 5,275,327) (hereinafter "Watkins") and Foster (U.S. Patent No. 4,500,382) (hereinafter "Foster").

Summary of the Response to the Office Action

Applicants have amended each of independent claims 8, 9, 13 and 14 to differently describe embodiments of the disclosure of the instant application. Claims 10, 11, 12 and 15 have been canceled without prejudice or disclaimer. Accordingly, claims 8, 9, 13 and 14 currently remain pending for consideration.

Rejections under 35 U.S.C. § 103(a)

Claims 8-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Black in view of Watkins and Foster. Applicants have amended each of independent claims 8, 9, 13 and 14 to differently describe embodiments of the disclosure of the instant application. To the extent that these rejections might be deemed to apply to the claims as newly-amended, they are respectfully traversed for at least the following reasons.

Applicants respectfully submit that Black discloses a laser beam splitter (20) which reflects the laser beam onto the object (O), but is capable of passing visible VL and infrared IL

lights. See col., 3, lines 50-66 of Black. Thus, Applicants respectfully submit that the light that irradiates on the object (O) is only the laser beam.

In addition, Applicants respectfully submit that Black discloses an Nd:YAG-type, an excimer-type, and an CO₂ laser as the laser source (10), but Black does not disclose a semiconductor laser as the laser source (10).

Independent claim 8 of the instant application has been newly-amended to describe an advantageous combination of features of a laser processing apparatus for welding stacked resin members to each other by using laser light, the apparatus including: “a semiconductor laser for generating laser light; and a filter, disposed between the semiconductor laser and the resin members, for blocking light having a wavelength to become an observation wavelength for measuring a temperature of a welding area in the light generated by the semiconductor laser; one of the stacked resin members, on the incident side of the laser light generated by the semiconductor laser, having a property of transmitting the laser light that is generated by the semiconductor laser and the thermally radiating light that is generated by the welding area; the filter blocks the light that is generated by the semiconductor laser and has a wavelength other than an oscillation wavelength of the semiconductor laser, and the light with a wavelength falling within the range of 1500nm to 2800nm which can be transmitted through the resin member on the incident side of the laser light; wherein the light that is generated by the semiconductor laser and has a wavelength that cannot be blocked by the filter is used for welding the resin members to each other, and the thermally radiating light that is generated by the welding area and has a light having the wavelength blocked by the filter is used for measuring the temperature of the welding area.”

Applicants respectfully submit that this advantageous combination of features associated with the present invention is based on the discovery that (I) a semiconductor laser emits not only the laser light having an oscillation wavelength of the semiconductor laser, but also a weak light having a wavelength of 1500-2800nm (the intensity of this weak light is lower than that of the laser light having the oscillation wavelength of at least 6 digits), and that (II) the temperature of a welding area cannot be measured accurately if the above weak light becomes noisy.

Applicants respectfully submit that Black does not disclose a semiconductor laser as the laser source (10) or that the laser beam splitter (20) blocks the weak light having a wavelength of 1500-2800nm, while allowing the laser light having an oscillation wavelength of the semiconductor laser. Instead, Black merely discloses that the laser beam splitter (20) reflects the laser beam. The additionally-applied references to Watkins and Foster do not cure the above-discussed deficiencies of Black.

Accordingly, newly-amended independent claim 8 of the instant application includes significantly different features from the disclosures of the applied references, whether taken separately or in combination with each other. As a result, newly-amended independent claim 8 is patentable over the currently applied art of record.

Independent claims 9, 13 and 14 of the instant application have also been newly-amended to include similar features as discussed above with regard to independent claim 8 of the instant application. Accordingly, similar arguments as discussed above with regard to independent claim 8 of the instant application also apply to independent claims 9, 13 and 14 of the instant application.

Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be

withdrawn because Black, Watkins, and Foster, whether taken separately or combined, do not teach or suggest each feature of independent claims 8, 9, 13 and 14 of the instant application, as newly-amended. As pointed out in MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).”

CONCLUSION

In view of the foregoing amendments and remarks, withdrawal of the rejections and allowance of all pending claims are earnestly solicited. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants’ undersigned representative to expedite prosecution. A favorable action is awaited.

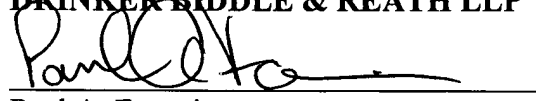
EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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